```
<110> Shi et al.
<120> Protein Tyrosine Phosphatase Polynucleotides, Polypeptides, and
Antibodies
<130> PT050P1
<140> Unassigned
<141> 2001-08-24
<150> PCT/US01/05496
<151> 2001-02-22
<150> 60/186,658
<151> 2000-03-03
<150> 60/189,881
<151> 2000-03-16
<160> 11
<170> PatentIn Ver. 2.0
<210> 1
<211> 733
<212> DNA
<213> Homo sapiens
<400> 1
                                                                         60
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
                                                                        120
teteceggae teetgaggte acatgegtgg tggtggaegt aagecaegaa gaeeetgagg
                                                                        180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                        240
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
                                                                        300
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg
                                                                        360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                        420
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
                                                                        480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
                                                                        540
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                        600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                        660
acaaccacta cacgcagaag agectetece tgteteeggg taaatgagtg cgacggeege
                                                                        720
                                                                        733
gactctagag gat
<210> 2
<211> 1832
<212> DNA
<213> Homo sapiens
<400> 2
ggcacgaggt atgatatcat gcaggaattt atggctttag aacttaagaa tctgcctggt
                                                                          60
                                                                         120
gagttcaact ctgggaatca accaagcaac agagaaaaaa acagataccg agatattctt
                                                                         180
ccatttcaac atcatggata tagtggccca aatgagagaa caacgttctg gcatggttca
aacgaaggag cagtatcact tttgttacga tattgtgctt gaagttcttc ggaaacttct
                                                                         240
gactttggat taagaaagac ttctgttgcc tctcacttga aattaccaag tgggtttgca
                                                                         300
cctcctcata aagaacatgt ttgcactgtg ctgaagggct ttgctatgca tacaatctgc
                                                                         360
```

tttcttggtt tatcagttta ttttctttct aaaagctccc tgaagggcaa tatcatttgg

420

cttggggtga	tcagtgttta	cttattgatc	ttgctaggca	atatcaaaat	aacttcccac	480
attttccagt	gaaacagatg	ttacataaaa	cgattgcagc	ttggctattt	ggttgaaggg	540
attacagagc	ccaataaagg	atttaaaata	tattcattaa	gattttattt	ggaaaggtgg	600
ctggagagag	ctgaggattt	ccaggacttt	gtaagttctt	attctgggag	aacataaggc	660
caataatcat	gacctcttcc	aggcattttt	aagacagatg	tctattcatg	ttctttagct	720
agagcctgta	ctttttgctg	gcatttgaat	aacccagttt	aaaaagagtc	cagttagggt	780
ggactaactt	tggacacaaa	ttggcttcca	tttcctacat	tttcatactg	ctgccttcct	840
acagctgcta	gaccaagacc	tgttggtctg	ggaagcattt	catggatagg	gagagctcct	900
ctcggtgaac	agtccaaaac	taaaatagat	gtttatatag	aaagcccaag	aggagacttt	960
tgccatgcct	gagttctttc	ctatcccacc	ctaacactta	acatattact	tagtctgctt	1020
tgttaaaagc	aagtattacc	tttaacttgc	ctcttactct	ttgcccttta	gctaactaat	1080
aaagtttgat	ataggcatta	ttatataatt	ctgagtcatt	catggtatct	ctcatgtttg	1140
atgtatttt	caaactaaga	tctatgatag	tttttttcc	agagttccat	taaatcattt	1200
atttccttta	ctttctcacc	tctgttgaaa	catttagaaa	ctggatttgg	gaacccaatt	1260
ttggaaaacc	agattcatag	tcatgaaaat	ggaaacttcc	atattctgtt	tttgaaaaga	1320
tgtggccatt	attacagtaa	ttttattata	ggactttgcc	tcgtacaatt	aatagtgata	1380
ttttggacaa	ggagttctgg	tgacaagcta	tacctaatta	taagctataa	aacaatagat	1440
	gtacagttta					1500
	atctataaat	_	5 55	-		1560
	tgaattggtt					1620
	ttgatgttaa					1680
	taatttcatt		_	-		1740
_	tactgtaaaa	_	_	aattttcttc	agaagaattc	1800
tatgctatta	ttaaaataaa	atatttactg	tg			1832
<210> 3						
<211> 1627						
<211> 102/						
<213> Homo	saniens					
\213> 1101110	Dupiend					
<400> 3						
ccacgcgtcc	gctggaagca	gtatcgccga	gaagaaagca	tctggggttt	tccaggaaac	60
	acagtgtgtg					120
	tttagcctgg					180
gatgtgcata	taaatctgag	gtggtttatt	ttgatggaca	aagtgctctg	ctgtatacac	240
ttgataaaaa	acctttaaaa	ccaataagag	atgttatttc	tttgaaattt	aaagccatgc	300
agagcaatgg	aattctactt	cacagagaag	gacaacatgg	aaatcacatt	actctggaat	360
taattaaagg	aaagcttgtc	ttttttctta	attcaggcaa	tgctaagctg	ccttccacta	420
ttgctcctgt	gaccctcacc	ctgggcagcc	tgctggatga	ccagcactgg	cattccgtcc	480
tcatcgagct	cctccacacg	caggtcaact	tcaccgtgga	caaacacact	catcatttcc	540
aagcaaaggg	agattccagt	aacttggatc	ttaattttga	gatcagcttt	gggggaattc	600
	aagatcgcgg					660
	tggagtggat					720
	tgtgtccttc					780
	ttatctggct					840
	aacgtggaac					900
	cgtcctcttt					960
	aaggaatgtc					1020
	tgccaagtgg					1080
	ggctgtgctc					1140
	tggctctgga					1200
	tggtgacaaa					1260
	ctccagatag					1320
	tggccccgac					1380 1440
	cttcgcgtac					1500
	cgagcagegg cccactgage					1560
Jagacygaac	cccactgage	ragrardrid	yaayaaccaa	tyaaatatat	acceactygg	1300

gaggttetet g ategegg	geetgatget	caaaagtgta	cttgtggatt	agaggggaac	ctagttctag	1620 1627
<210> 4 <211> 1573 <212> DNA <213> Homo	sapiens					
ctggtatgt atcttgtta aacattttcc tatgagaata tattagtcca tttgttcaaa atttattat cagcctggac agcagtggct gctgcacta gaataataaa ctagaactat gaggccattg cacaattata tgagtctcta gtgagcaatg	cttctgttat gatcctcttg agtcatggtc cttgtgtcta gctgtggcca ttcagtgata tctttaacaa ccaatctctt aagagaaaat ctaagggtaa ttaatattt aaggagtggg gtggttttgg tttcctggta atttagtaac cttatgttca tacttcttgg gacattgtt gaacaccct ccaatgtata tgtaaccata	ctactcaaaa tgtctgcctt ctggatttgc acaaatacca ctcaaggggg gtggctggaa aagacatagt aaattaagta attgtaaata tctgcattg attttgaaa actccgtctc acccagtgtg ccacaggata tgtaactggg gtaaggccag tcactttaca ctgctcagaa ctttctgaat tgtctcagaa ttcatacatt tgtctcagta tattcccctt	ttggaacaga gcctcaggca aaggctgaat gtggttgcag atatggtagc ctggaaacaa ctctcgagga gacatacaga atcatttcc cagggttctc agaaataaat tcttttattt cagagtctca aaaaacaac tctcagaag tttccatatc ccggacagct tttaaagtgt aactaagtt acctttgtta tcttcatgga gtgcatgtat tttgctagga gctattccac	gtcgaagctg tccttcagca agaagatg attgaccttg tccaactggg tatcgccaag aaaagtataa atctgcagac aatacatttt aaaattgaa aattattat ctctgtcacc aacaaaaaa cacccagggt actaccatct attgacttgg tttggaagcc cttaattttt tcaccacata acttcctga tataaccatg tataaccatg tcatgatgct atcatgatgct	ggaatteeta gttetteega gagetggtgg gagagagaat tgaceageta aggacageat teagtactge ttacattgaa atggtaaatt aaataaacce taaaaaaagt ttatttattt	60 120 180 240 300 360 420 480 540 600 720 780 840 900 960 1020 1080 1140 1200 1320 1380 1440 1500 1560
ggccctcaaa <210> 5 <211> 1312 <212> DNA <213> Homo <400> 5 ggcacgagct cacaacggct tttttcgagt tgtgaacagg accctctga tcgcctgatc tactgcaatt aaagaacatc gcagcttata tcctttgata gatgtatctt	sapiens ctttctcccc ctgacttaac atgtggccag agtttactta gttggtgggt ttcaaaaatg gtgatgctga ttccagtaac aactggggcc ccgaggcttc tcttttttaa ttatacqqat	ccatttctgo aagagtcaga catggagcaa ttactgcaag aggaagaaco tacttgtgga ccggaatgaa taagatcgto tatgctctgo atatcttcat	atacaagaaa aatactaato cttcaggcca aagtcacggo attagaggaa ttagaccaato attacagaca ccggggagaca tttcctacct	ctgcatggac cagagaacco ctattaacco tggtcaataa aaacctactg acactggatt caggccgact gatcatttto tccacggaga tattttaga tagtgactt	catcatacag atatgctggg tgcagagcac gcaagatgga gggaggttct ttctcagtat gcttgcttat gcattcagaa gaattcagct acttagcgg tacttaggg ttcatttgat cgagctacct	60 120 180 240 300 420 480 540 600 660 720 780

199-10-1

gaggcgacaa actttaaatt	acctaccgag tgcccacaga	cctggtgata accctctaaa	gctggttgtc tccccttgta	agtgggaaga caagatagaa aatttaactg gagagtaaaa	tcttagttca ttagtccaaa	840 900 960 1020
				tcaagctcaa		1080
ctaaaaaatc	ccaaacatat	aactgaactc	ctcacaccca	attggaccaa	tctatcaccc	1140
				tetecteege		1200
				tctacaatca		1260
				taaggaaagg		1312
			35+5			
<210> 6						
<211> 1504						
<212> DNA						
<213> Homo	sapiens					
(220)	5 to p = 0 - 1					
<400> 6						
ggcacgagtt	catttgatgt	ggggaatggg	ccttttgaaa	tctcagtgca	gtcacccacc	60
cacttcaacg	acaaccagtg	gcaccatgtg	agggttgaaa	ggaacatgaa	ggaggcctcc	120
				ccgctgatgg		180
				ccagacagag		240
				atttggaaga		300
				gcagctatgg		360
				tttgtgactg		420
				attttggatc		480
				actccagctc		540
				aatttagttt		600
				aagaatacct		660
attoccaaaa	atggaagttt	gcagatcagg	tacaaqttaa	ataaatatca	agageetgat	720
gttgttaact	ttgattttaa	aaacatqqct	gatggacaac	ttcaccacat	aatqattaac	780
				gaaggagaca		840
				tgggcaggat		900
				gcttcacagg		960
				tgcaccccag		1020
				tggcccagcc		1080
				ctggaacaat		1140
				ttggaggtct		1200
				gcatttatca		1260
				tagtagcggt		1320
				acagtcctct		1380
				acatcctatg		1440
				atgcattttt		1500
aaaa	J			J	•	1504
<210> 7						
<211> 67						
010 DDm						

<212> PRT

<400> 7

Met Gln Glu Phe Met Ala Leu Glu Leu Lys Asn Leu Pro Gly Glu Phe
1 5 10 15

Asn Ser Gly Asn Gln Pro Ser Asn Arg Glu Lys Asn Arg Tyr Arg Asp 20 25 30

Ile Leu Pro Phe Gln His His Gly Tyr Ser Gly Pro Asn Glu Arg Thr

<213> Homo sapiens

35 40 4:

Thr Phe Trp His Gly Ser Asn Glu Gly Ala Val Ser Leu Leu Arg 50 55 60

Tyr Cys Ala

<210> 8

<211> 229

<212> PRT

<213> Homo sapiens

<400> 8

Met Arg Ile Glu Val Tyr Gly Cys Ala Tyr Lys Ser Glu Val Val Tyr
1 5 10 15

Phe Asp Gly Gln Ser Ala Leu Leu Tyr Thr Leu Asp Lys Lys Pro Leu 20 25 30

Lys Pro Ile Arg Asp Val Ile Ser Leu Lys Phe Lys Ala Met Gln Ser 35 40 45

Asn Gly Ile Leu Leu His Arg Glu Gly Gln His Gly Asn His Ile Thr
50 60

Leu Glu Leu Ile Lys Gly Lys Leu Val Phe Phe Leu Asn Ser Gly Asn 65 70 75 80

Ala Lys Leu Pro Ser Thr Ile Ala Pro Val Thr Leu Thr Leu Gly Ser 85 90 95

Leu Leu Asp Asp Gln His Trp His Ser Val Leu Ile Glu Leu Leu His
100 105 110

Thr Gln Val Asn Phe Thr Val Asp Lys His Thr His His Phe Gln Ala 115 120 125

Lys Gly Asp Ser Ser Asn Leu Asp Leu Asn Phe Glu Ile Ser Phe Gly 130 135 140

Gly Ile Pro Thr Pro Gly Arg Ser Arg Ala Phe Thr Arg Lys Ser Phe 145 150 155 160

His Gly Cys Leu Glu Asn Leu Tyr Tyr Asn Gly Val Asp Val Thr Glu 165 170 175

Leu Ala Lys Lys His Lys Pro Gln Ile Leu Met Met Gly Asn Val Ser 180 185 190

Phe Ser Cys Pro Gln Pro Gln Thr Val Pro Val Thr Phe Leu Ser Ser 195 200 205

Arg Ser Tyr Leu Ala Leu Pro Gly Asn Ser Gly Glu Asp Lys Val Ser 210 215 220

Val Thr Phe Gln Phe

225

<210> 9

<211> 155

<212> PRT

<213> Homo sapiens

<400> 9

Met Gly Ser Val Thr Gly Ala Val Leu Lys Thr Leu Leu Leu Leu Ser 1 5 10 15

Thr Gln Asn Trp Asn Arg Val Glu Ala Gly Asn Ser Tyr Asp Cys Asp 20 25 30

Asp Pro Leu Val Ser Ala Leu Pro Gln Ala Ser Phe Ser Ser Ser Ser 35 40 45

Glu Leu Ser Ser Ser His Gly Pro Gly Phe Ala Arg Leu Asn Arg Arg 50 60

Asp Gly Ala Gly Gly Trp Ser Pro Leu Val Ser Asn Lys Tyr Gln Trp 65 70 75 80

Leu Gln Ile Asp Leu Gly Glu Arg Met Glu Val Thr Ala Val Ala Thr 85 90 95

Gln Gly Gly Tyr Gly Ser Ser Asn Trp Val Thr Ser Tyr Leu Leu Met 100 105 110

Phe Ser Asp Ser Gly Trp Asn Trp Lys Gln Tyr Arg Gln Glu Asp Ser 115 120 125

Ile Trp Val Cys Ser Leu Thr Lys Asp Ile Val Ser Arg Gly Lys Ser 130 140

Ile Ile Ser Thr Ala Ser Cys Leu Pro Ile Ser 145 150 155

<210> 10

<211> 216

<212> PRT

<213> Homo sapiens

<400> 10

Met Glu Gln Leu Gln Ala Thr Ile Asn Arg Ala Glu His Cys Glu Gln 1 5 10 15

Glu Phe Thr Tyr Tyr Cys Lys Lys Ser Arg Leu Val Asn Lys Gln Asp 20 25 30

Gly Thr Pro Leu Ser Trp Trp Val Gly Arg Thr Asn Glu Thr Gln Thr 35 40 45

Tyr Trp Gly Gly Ser Ser Pro Asp Leu Gln Lys Cys Thr Cys Gly Leu 50 55 60

Glu Gly Asn Cys Ile Asp Ser Gln Tyr Tyr Cys Asn Cys Asp Ala Asp 65 70 75 80

Arg Asn Glu Trp Thr Asn Asp Thr Gly Leu Leu Ala Tyr Lys Glu His
85 90 95

Leu Pro Val Thr Lys Ile Val Ile Thr Asp Thr Gly Arg Leu His Ser

Glu Ala Ala Tyr Lys Leu Gly Pro Leu Leu Cys Arg Gly Asp Arg Ser 115 120 125

Phe Trp Asn Ser Ala Ser Phe Asp Thr Glu Ala Ser Tyr Leu His Phe 130 135 140

Pro Thr Phe His Gly Glu Leu Ser Ala Asp Val Ser Phe Phe Lys 145 150 155 160

Thr Thr Ala Ser Ser Gly Val Phe Leu Glu Asn Leu Gly Ile Ala Asp 165 170 175

Phe Ile Arg Ile Glu Leu Arg Ser Pro Thr Val Val Thr Phe Ser Phe 180 185 190

Asp Val Gly Asn Gly Pro Phe Glu Ile Ser Val Gln Ser Pro Thr His 195 200 205

Phe Asn Glu Leu Pro Lys Asn Ser 210 215

<210> 11

<211> 410

<212> PRT

<213> Homo sapiens

<400> 11

Met Lys Glu Ala Ser Leu Gln Val Asp Gln Leu Thr Pro Lys Thr Gln 1 5 10 15

Pro Ala Pro Ala Asp Gly His Val Leu Leu Gln Leu Asn Ser Gln Leu 20 25 30

Phe Val Gly Gly Thr Ala Thr Arg Gln Arg Gly Phe Leu Gly Cys Ile 35 40 45

Arg Ser Leu Gln Leu Asn Gly Met Thr Leu Asp Leu Glu Glu Arg Ala
50 55 60

Gln Val Thr Pro Glu Val Gln Pro Gly Cys Arg Gly His Cys Ser Ser 65 70 75 80

Tyr Gly Lys Leu Cys Arg Asn Gly Gly Lys Cys Arg Glu Arg Pro Ile 85 90 95

Gly Phe Phe Cys Asp Cys Thr Phe Ser Ala Tyr Thr Gly Pro Phe Cys 100 105 110

Ser Asn Glu Ile Ser Ala Tyr Phe Gly Ser Gly Ser Ser Val Ile Tyr 115 120 125

Asn Phe Gln Glu Asn Tyr Leu Leu Ser Lys Asn Ser Ser Ser His Ala 130 135 140

Ala Ser Phe His Gly Asp Met Lys Leu Ser Arg Glu Met Ile Lys Phe 145 150 155 160

Ser Phe Arg Thr Thr Arg Thr Pro Ser Leu Leu Leu Phe Val Ser Ser 165 170 175

Phe Tyr Lys Glu Tyr Leu Ser Val Ile Ile Ala Lys Asn Gly Ser Leu 180 185 190

Gln Ile Arg Tyr Lys Leu Asn Lys Tyr Gln Glu Pro Asp Val Val Asn 195 200 205

Phe Asp Phe Lys Asn Met Ala Asp Gly Gln Leu His His Ile Met Ile 210 215 220

Asn Arg Glu Glu Gly Val Val Phe Ile Glu Ile Asp Asp Asn Arg Arg 225 230 235 240

Arg Gln Val His Leu Ser Ser Gly Thr Glu Phe Ser Ala Val Lys Ser 245 250 255

Leu Val Leu Gly Arg Ile Leu Glu His Ser Asp Val Asp Gln Asp Thr 260 265 270

Ala Leu Ala Gly Ala Gln Gly Phe Thr Gly Cys Leu Ser Ala Val Gln 275 280 285

Leu Ser His Val Ala Pro Leu Lys Ala Ala Leu His Pro Ser His Pro 290 295 300

Asp Pro Val Thr Val Thr Gly His Val Thr Glu Ser Ser Cys Met Ala 305 310 315 320

Gln Pro Gly Thr Asp Ala Thr Ser Arg Glu Arg Thr His Ser Phe Ala 325 330 335

Asp His Ser Gly Thr Ile Asp Asp Arg Glu Pro Leu Ala Asn Ala Ile 340 345 350

Lys Ser Asp Ser Ala Val Ile Gly Gly Leu Ile Ala Val Val Ile Phe 355 360 365

Ile Leu Leu Cys Ile Thr Ala Ile Ala Val Arg Ile Tyr Gln Gln Lys 370 375 380

Arg Leu Tyr Lys Arg Ser Glu Ala Lys Arg Cys Ser Cys Tyr Leu Val 385 390 395 400

Ala Val Leu Thr Ser Leu Val Ala Glu Leu 405 410